Amendments to the Specification:

Please replace paragraph **[0094]** with the following rewritten paragraph:

[0094] The length of carbon nanotubes used in the present invention is preferably equal to or more than 0.1 μm ~~?m~~ and equal to or less than 100 μm~~?m~~. If the length of the carbon nanotubes exceeds this upper limit, the synthesis becomes difficult or requires a special method raising cost. On the other hand, if the length of the carbon nanotubes falls short of this lower limit, the number of cross-link bonding points per carbon nanotube is reduced, which is undesirable. A more desirable upper limit of carbon nanotube length is 10 μm ~~?m~~ or less and a more desirable lower limit of carbon nanotube length is 1 μm ~~?m~~ or more.

Please replace paragraph **[0128]** with the following rewritten paragraph:

[0128] A normal reflux method can be employed. The temperature is preferably set to a level near the boiling point of the acid used. When concentrated nitric acid is used, for instance, the temperature is preferably set to 120 to ~~130?C~~130°C. The reflux desirably lasts 30 minutes to 20 hours, more desirably, 1 hour to 8 hours.

Please replace paragraph **[0165]** with the following rewritten paragraph:

[0165] To give an example of conditions preferable for the above combination, the heating temperature is set to 50 to ~~500?C~~500°C, more desirably 150 to ~~200?C~~200°C, and the heating period is set to 1 minute to 10 hours, more desirably 1 hour to 2 hours.

Please replace paragraph **[0193]** with the following rewritten paragraph:

[0193] An example of surface treatment for enhancing the absorption of the cross-linking application liquid is treatment by a silane coupling agent (e.g., aminopropyltriethoxysilane or ~~? (2-aminoethyl) aminopropyltrimethoxysilane)~~ γ-(2-aminoethyl) aminopropyltrimethoxysilane). Surface treatment by aminopropyltriethoxysilane is particularly widely employed and is preferable for the surface treatment step in the present invention. As documented by Y. L. Lyubchenko et al. in "Nucleic Acids Research vol. 21 (1993)" on pages 1117 to 1123, for example, surface treatment by aminopropyltriethoxysilane has conventionally been employed to treat the surface of a mica substrate for use in observation of AFM of DNA.

Please replace paragraph **[0212]** with the following rewritten paragraph:

[0212] [Example 1 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Glycerin]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0218]** with the following rewritten paragraph:

[0218] The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 2 hours to start polymerization by an ester exchange reaction and obtain a coat. A reaction scheme of this is shown in Fig. 5.

Please replace paragraph **[0219]** with the following rewritten paragraph:

[0219] [Example 2 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Hydroquinone]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0223]** with the following rewritten paragraph:

[0223] (Curing Step)

The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 6.

Please replace paragraph **[0224]** with the following rewritten paragraph:

[0224] [Example 3 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Naphthalenediol]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0228]** with the following rewritten paragraph:

[0228] The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 7.

Please replace paragraph **[0229]** with the following rewritten paragraph:

[0229] [Example 4 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Hexynediol]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for

reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0233]** with the following rewritten paragraph:

[0233] (Curing Step)

The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 8.

Please replace paragraph **[0234]** with the following rewritten paragraph:

[0234] [Example 5 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Butenediol]

(Addition Step)

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0239]** with the following rewritten paragraph:

[0239] (Curing Step)

The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 9.

Please replace paragraph **[0240]** with the following rewritten paragraph:

[0240] [Example 6 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Congo Red]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0244]** with the following rewritten paragraph:

[0244] (Curing Step)

The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 10.

Please replace paragraph **[0245]** with the following rewritten paragraph:

[0245] [Example 7 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Cross-linked Using Cisplatin]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0249]** with the following rewritten paragraph:

[0249] (Curing Step)

The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 11.

Please replace paragraph **[0250]** with the following rewritten paragraph:

[0250] [Example 8 ... Synthesis of Coating Material and Coat of Multi-wall Carbon Nanotube Acid Anhydride]

(Addition Step)

Addition of Carboxyl Group ... Synthesis of Carbon Nanotube Carboxylic Acid

30 mg of multi-layer carbon nanotube powder (purity: 90%, average diameter: 30 nm, average length: 3 μm, a product of Science Laboratory Inc.) was added to 20 ml of

concentrated nitric acid (a 60 mass% aqueous solution, a product of KANTO KAGAKU) for reflux at ~~120?C~~120°C for 20 hours to synthesize carbon nanotube carboxylic acid. A reaction scheme of the above is shown in Fig. 3. In Fig. 3, a carbon nanotube (CNT) is represented by two parallel lines (same applies for other figures relating to reaction scheme).

Please replace paragraph **[0254]** with the following rewritten paragraph:

[0254] The substrate to which the coating material of this example had been applied as above was heated at ~~200?C~~200°C for 10 minutes to start polymerization by a dehydration condensation reaction and obtain a coat. A reaction scheme of this is shown in Fig. 12.